# EPI Update for Friday October 14, 2005

## Center For Acute Disease Epidemiology

## Iowa Department of Public Health

***Items for this week's EPI Update include:***

- **Avian Influenza Update**
- **Psittacosis**
- **Syndromic Surveillance**
- **National Breast Cancer Awareness Month**
- **Announcements/Upcoming Meetings**

### Avian Influenza Update/Pandemic Influenza Preparedness

*International Update:* The H5N1 strain of avian influenza circulating throughout Asia was identified in three domestic ducks in Romania. This is the first report of H5N1 in Europe, though no human cases have been identified. As of Oct. 10 and according to the WHO, there have been 117 confirmed cases in Indonesia, Thailand, Vietnam and Cambodia. Of those 117 cases, 60 have died. Though the reported mortality rate is high, it is important to note that there are likely mild cases of H5N1 infection not captured by local, national and WHO surveillance efforts. Therefore a risk ratio currently is not a reliable measurement.

*U.S. Update:* No H5N1 avian activity has been reported in the U.S. However prominent health officials and politicians this week are emphasizing the need for planning/preparedness efforts, sensing the possibility that H5N1 strain has the potential to cause an influenza pandemic.

You may be hearing in the news how many national governments are working with researchers and scientists on an influenza vaccine against the H5N1 strain of avian influenza, which has infected people and birds in Asia.

The federal government has committed funds toward the purchase of antiviral medication that may be stockpiled for use during a pandemic influenza outbreak. Other measures being proposed include:

- Funding for research to develop a vaccine and improve the efficiency required to produce it
- Funding for improvements to the public health infrastructure
- Increased international surveillance efforts
- A national response plan for pandemic influenza (already nearing completion)

**Psittacosis**

Psittacosis (also known as Parrot Fever) is found in birds and is caused by the bacteria *Chlamydia psittaci*. Psittacosis occurs worldwide and in all seasons, with the highest incidence in the winter months due the possibility of the bacteria in ambient air. Currently, fewer than 50 confirmed human cases are reported annually in the United States; additionally undiagnosed or unreported cases are thought to occur. In Iowa, there were three cases reported in 2001, and there have been none since then. However, there is one suspect (yet unconfirmed) case this year.

Psittacosis is primarily seen in parrots, parakeets and cockatoos, but pigeons and some poultry (turkey, geese and ducks) may shed also the disease. Psittacosis can be spread by exposure to infected dust or dirt and even healthy birds can shed it when stressed. Human illness occurs when a person has inhaled the bacteria from droppings, secretions or dust from feathers of infected birds.

The incubation period is usually one to two weeks, but can last up to four weeks. Symptoms include fever, headache, rash, muscle aches, chills and upper or lower respiratory disease. The disease is usually either mild or moderate but can be severe. Symptoms of severe infection include encephalitis and myocarditis, especially in untreated elderly people. The mortality rate can be as high as 30 percent in severe infections left untreated. Treated cases are rarely fatal.

Cases are confirmed on the basis of clinical signs of illness and laboratory results. The organism can be cultured from respiratory secretions, but it is only performed in a few labs. Analysis of paired titers with a fourfold rise in titer being confirmatory can be performed using complement fixation tests (CF is the test most routinely used in laboratories for human cases) or microimmunofluorescence (MIF). A reciprocal titer of 16 IgM using MIF also confirms infection. A probable case is one that is epidemiologically linked to a confirmed case of psittacosis, or if a single titer of 1:32 is found. Treatment is usually with tetracycline type antibiotics.

Person-to-person transmission is rare but can be spread through droplet contact when an infected person coughs. The spread of this disease can be prevented. Birds that are bought, traded or otherwise procured should be raised and handled to prevent the spread of disease. To reduce the risk of spreading this disease, only acquire birds from a licensed pet store or aviary. When interacting with birds or cleaning cages, proper precautions should be followed by animal handlers and pet owners to avoid exposure to secretions, droppings and dust from feathers.

**Syndromic Surveillance – Part One**

Syndromic Surveillance is the name given to procedures and systems developed for early detection of outbreaks of illness based on pre-diagnostic information and before laboratory testing is performed. The purpose is to quickly identify and respond to

outbreaks of all kinds, but especially to outbreaks that result from deliberate and malicious activity. In addition to federal agencies, there are currently a number of states and local public health jurisdictions that are receiving daily electronic reports consisting of chief complaints by patients, lab test requests and over-the-counter pharmaceutical sales. Other sources of information include poison control centers and wildlife centers.

When collecting this type of information, there is always a natural level of chief complaints of a certain type (such as vomiting or diarrhea), lab test requests and over-the-counter sales of symptom-reducing medicines. This natural level is referred to as 'noise.' The primary challenge is to develop a detection method that is capable of analyzing a significant volume of information, accurately reduce the 'noise' and meaningfully identify increases in certain symptoms in a given population, which are linked in some manner. The Iowa Department of Public Health is monitoring syndromic surveillance methods taking place in other states and at the federal level, but is not currently pursuing expansion of existing syndromic surveillance currently in place for West Nile Virus and influenza-like illness. Look for Syndromic Surveillance - Part Two next week.

**October is National Breast Cancer Awareness Month**

Breast cancer is the most commonly diagnosed cancer among American women, except for skin cancer. It is second only to lung cancer as the most common cause of death among women. According to the U.S. Cancer Statistics: 2002 Incidence and Mortality report, which includes incidence data for about 93% of the U.S. population and mortality data for the entire country, more than 180,000 women were diagnosed with breast cancer in 2002, and more than 41,000 died from the disease.

For more information on milestones achieved and partnerships that have developed to fight breast cancer as well as research activities, go to
http://www.cdc.gov/cancer/nbccedp/nbcam.htm

**Meeting Announcement and Training Opportunities**

- The next Fall Epidemiology Update is taking place on Tuesday Oct. 18, 2005, in Creston. See the Fall Epidemiology Updates Brochure, now available online at the Iowa Department of Public Health's website, for more details.

  http://www.idph.state.ia.us/common/pdf/conferences/disease_prevention_fall.pdf